

07-06-01

A

DOCKET NO. : 00188.US1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Christopher W. Benjamin, Steven L.  
Roberds , Alla M. Karnovsky and Cara L.  
Ruble

Serial No.: Not yet assigned

Group Art Unit: Not yet assigned

Filing Date: Herewith

Examiner: Not yet assigned

For: Human Ion Channels

EXPRESS MAIL LABEL NO: EL531276446US  
DATE OF DEPOSIT: July 5, 2001

Box ☒ Patent Application  
☐ Provisional ☐ Design

Assistant Commissioner for Patents  
Washington DC 20231

Sir:

PATENT APPLICATION TRANSMITTAL LETTER

Transmitted herewith for filing, please find

☒ A Utility Patent Application under 37 C.F.R. 1.53(b).

It is a continuing application, as follows:

☐ continuation ☐ divisional ☐ continuation-in-part of prior application number  
\_\_\_\_/\_\_\_\_.

☐ A Provisional Patent Application under 37 C.F.R. 1.53(c).

☐ A Design Patent Application (submitted in duplicate).

- ☐ **Request for Nonpublication.** The invention(s) disclosed in the present application filed herewith has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing. Thus, pursuant to 35 U.S.C. §122(b)(2)(B)(i), Applicant(s) request that the above-identified patent application not be published.

Including the following:

- ☐ Provisional Application Cover Sheet.
- ☒ New or Revised Specification, including pages 1 to 146 containing:
- ☒ Specification
  - ☒ Claims
  - ☒ Abstract
  - ☐ Substitute Specification, including Claims and Abstract.
- ☐ The present application is a continuation application of Application No. \_\_\_\_\_ filed \_\_\_\_\_. The present application includes the Specification of the parent application which has been revised in accordance with the amendments filed in the parent application. Since none of those amendments incorporate new matter into the parent application, the present revised Specification also does not include new matter.
- ☐ The present application is a continuation application of Application No. \_\_\_\_\_ filed \_\_\_\_\_, which in turn is a continuation-in-part of Application No. \_\_\_\_\_ filed \_\_\_\_\_. The present application includes the Specification of the parent application which has been revised in accordance with the amendments filed in the parent application. Although the amendments in the parent C-I-P application may have incorporated new matter, since those are the only revisions included in the present application, the present application includes no new matter in relation to the parent application.

☐ A copy of earlier application Serial No. \_\_\_\_\_ Filed \_\_\_\_\_  
\_\_\_\_\_, including Specification, Claims and Abstract (pages 1 - @@), to which  
no new matter has been added TOGETHER WITH a copy of the executed  
oath or declaration for such earlier application and all drawings and  
appendices. Such earlier application is hereby incorporated into the present  
application by reference.

☐ Please enter the following amendment to the Specification under the Cross-Reference to Related Applications section (or create such a section) : “This Application:

☐ is a continuation of ☐ is a divisional of ☐ claims benefit of U.S. provisional Application Serial No. \_\_\_\_\_ filed \_\_\_\_\_

☐ Signed Statement attached deleting inventor(s) named in the prior application.

☐ A Preliminary Amendment.

☐ \_\_\_\_\_ Sheets of ☐ Formal ☐ Informal Drawings.

☐ Drawing view to publish: Figure .

☐ Petition to Accept Photographic Drawings.☐ Petition Fee

☒ An ☐ Executed ☒ Unexecuted Declaration or Oath and Power of Attorney.

☐ An Associate Power of Attorney.

☐ An ☐ Executed ☐ Copy of Executed Assignment of the Invention to \_\_\_\_\_

☐ A Recordation Form Cover Sheet.

☐ Recordation Fee - \$40.00.

☐ The prior application is assigned of record to \_\_\_\_\_

☐ Priority is claimed under 35 U.S.C. § 119 of Patent Application No. \_\_\_\_\_  
\_\_\_\_\_ filed \_\_\_\_\_ in \_\_\_\_\_  
(country).

☐ A Certified Copy of each of the above applications for which priority  
is claimed:

☐ is enclosed.

☐ has been filed in prior application Serial No. \_\_\_\_\_ filed \_\_\_\_\_.

☐ An ☐ Executed or ☐ Copy of Executed Earlier Statement Claiming Small  
Entity Status under 37 C.F.R. 1.9 and 1.27

☐ is enclosed.

☐ has been filed in prior application Serial No. \_\_\_\_\_ filed \_\_\_\_\_  
\_\_\_\_\_, said status is still proper and desired in present case.

☒ Diskette Containing DNA/Amino Acid Sequence Information.

☒ Statement to Support Submission of DNA/Amino Acid Sequence Information.

☐ The computer readable form in this application \_\_\_\_\_, is identical with  
that filed in Application Serial Number \_\_\_\_\_, filed \_\_\_\_\_. In  
accordance with 37 CFR 1.821(e), please use the ☐ first-filed, ☐ last-filed  
or ☐ only computer readable form filed in that application as the computer  
readable form for the instant application. It is understood that the Patent and  
Trademark Office will make the necessary change in application number and  
filing date for the computer readable form that will be used for the instant  
application. A paper copy of the Sequence Listing is ☐ included in the  
originally-filed specification of the instant application, ☐ included in a  
separately filed preliminary amendment for incorporation into the  
specification.

☐ Information Disclosure Statement.

☐ Attached Form 1449.

☐ Copies of each of the references listed on the attached Form PTO-1449  
are enclosed herewith.

☐ A copy of Petition for Extension of Time as filed in the prior case.

- ☐ Appended Material as follows: \_\_\_\_\_
- ☒ Return Receipt Postcard (should be specifically itemized).
- ☒ Other as follows: Sequence Listing Pages 1- 48 and Computer Readable Copy of Sequence Listing.

**FEE CALCULATION:**

- ☐ Cancel in this application original claims \_\_\_\_\_ of the prior application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)

				SMALL ENTITY		NOT SMALL ENTITY	
				RATE	FEE	RATE	FEE
PROVISIONAL APPLICATION				\$75.00	\$	\$150.00	\$
DESIGN APPLICATION				\$160.00	\$	\$320.00	\$
UTILITY APPLICATIONS BASE FEE				\$355.00	\$	\$710.00	\$ 710.00
UTILITY APPLICATION; ALL CLAIMS CALCULATED AFTER ENTRY OF ALL AMENDMENTS							
	No. Filed	No. Extra					
TOTAL CLAIMS	274 - 20 =	254		\$9 each	\$	\$18 each	\$4572.00
INDEP. CLAIMS	29 - 3 =	26		\$40 each	\$	\$80 each	\$2080.00
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				\$135	\$	\$270	\$
ADDITIONAL FILING FEE					\$		\$
TOTAL FILING FEE DUE					\$		\$7362.00

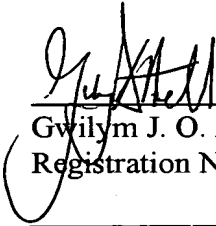
- ☒ A Check is enclosed in the amount of \$ 7,362.00.
- ☒ The Commissioner is authorized to charge payment of the following fees and to refund any overpayment associated with this communication or during the pendency of this application to deposit account 23-3050. This sheet is provided in duplicate.
- ☐ The foregoing amount due.

- ☒ Any additional filing fees required, including fees for the presentation of extra claims under 37 C.F.R. 1.16.
- ☒ Any additional patent application processing fees under 37 C.F.R. 1.17 or 1.20(d).
- ☐ The issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance.
- ☒ The Commissioner is hereby requested to grant an extension of time for the appropriate length of time, should one be necessary, in connection with this filing or any future filing submitted to the U.S. Patent and Trademark Office in the above-identified application during the pendency of this application. The Commissioner is further authorized to charge any fees related to any such extension of time to deposit account 23-3050. This sheet is provided in duplicate.

**SHOULD ANY DEFICIENCIES APPEAR** with respect to this application, including deficiencies in payment of fees, missing parts of the application or otherwise, the United States Patent and Trademark Office is respectfully requested to promptly notify the undersigned.

Date: July 5, 2001

Woodcock Washburn Kurtz  
Mackiewicz & Norris LLP  
One Liberty Place - 46th Floor  
Philadelphia PA 19103  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439

  
Gwilym J. O. Attwell  
Registration No. 45,449

  
PLACE BARCODE LABEL HERE  
CUSTOMER NO. 26657  
26657  
PATENT TRADEMARK OFFICE

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In Re Application of:**

Christopher W. Benjamin, Steven L.  
Roberds , Alla M. Karnovsky and Cara L.  
Ruble

**Serial No.:** Not yet assigned**Group Art Unit:** Not yet assigned**Filing Date:** Herewith**Examiner:** Not yet assigned**For:** Human Ion Channels**BOX SEQUENCE**

Assistant Commissioner for Patents  
Washington DC 20231

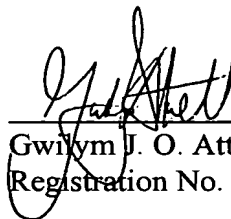
**STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE  
WITH 37 CFR §§ 1.821 THROUGH 1.825**

- ☒ I hereby state, in accordance with the requirements of 37 C.F.R. §1.821(f), that the contents of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 CFR §1.821(c) and (e), respectively are the same.
- ☐ I hereby state that the submission filed in accordance with 37 CFR §1.821(g) does not include new matter.
- ☐ I hereby state that the submission filed in accordance with 37 CFR §1.821(h) does not include new matter or go beyond the disclosure in the international application as filed.
- ☐ I hereby state that the amendments, made in accordance with 37 CFR §1.825(a), included in the substitute sheet(s) of the Sequence Listing are supported in the application, as filed, at pages \_\_\_\_\_. I hereby state that the substitute sheet(s) of the Sequence Listing does (do) not include new matter.
- ☐ I hereby state that the substitute copy of the computer readable form, submitted in accordance with 37 CFR §1.825(b), is the same as the amended Sequence Listing.



I hereby state that the substitute copy of the computer readable form, submitted in accordance with 37 CFR §1.825(d), contains identical data to that originally filed.

Date: July 5, 2001



Gwilym J. O. Attwell  
Registration No. 45,449

Woodcock Washburn Kurtz  
Mackiewicz & Norris LLP  
One Liberty Place - 46th Floor  
Philadelphia PA 19103  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439